



TRAFFIC FORECAST COVER LETTER

MEMORANDUM TO: Stuart Basham, Division 10 Planning Engineer, NCDOT

FROM: Mike Surasky, PE and Nita Bhawe

DATE: January 2, 2018

SUBJECT: Traffic Forecast for STIP Project U-5956, Cabarrus County
Realign Union Cemetery Rd to intersect with US 29 (Concord Pkwy) from Sunderland Rd to
SR 1414 (Rock Hill Church Rd)

Please find attached the 2017 base year and 2040 future year Traffic Forecast for STIP project U-5956 located in Cabarrus County. This is the first forecast done for this project. This forecast was requested by NCDOT on September 18, 2017.

STIP project U-5956 involves realigning Union Cemetery Rd to intersect with US 29 (Concord Pkwy) from Sunderland Rd to SR 1414 (Rock Hill Church Rd) and eliminating the current intersection of Union Cemetery Road and SR 1002 (Cabarrus Avenue) by creating a cul-de-sac.

The project lies within the Cabarrus-Rowan Metropolitan Planning Organization (CRMPO) and is contained in the 2018-2027 Statewide Transportation Improvement Program (STIP), dated August 2017. The project is also included in the Metrolina Regional Model (MRM) 2040 MTP scenario. The Metrolina Regional Model 2016 version 1.0, adopted October, 2017, was utilized for this forecast along with project counts, and historical AADTs.

The following four (4) scenarios are provided in the forecast:

- 2017 Base Year No-Build
- 2017 Base Year Build
- 2040 Future Year No-Build
- 2040 Future Year Build

Certain assumptions were made in the development of the forecast, detailed below.

Fiscal Constraints:

For projects falling within an MPO, forecasts are fiscally constrained to match the assumptions of the MPO's MTP. The amended CRMPO MTP was approved in August, 2015. This forecast assumes that all projects within the MTP are constructed and open to traffic in 2040.

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Interpolation:

To determine any intermediate years, straight-line interpolation may be used. AADT volumes may be extrapolated for up to two years immediately following 2040. If it is determined that any of these assumptions have become inconsistent with the project and surrounding area activity, please request updated information.

This forecast was approved by the NCDOT Transportation Planning Division on January 2, 2018.

If you have any questions, or I can be of further assistance, please do not hesitate to call me at 919-836-4060, or e-mail me at mike.surasky@wsp.com. Thank you.

cc: FILE (Cabarrus County, Project U-5956)

cc: (via e-mail as PDF attachments):

James H. Dunlop, PE -- NCDOT Congestion Management Section (jdunlop@ncdot.gov)

Brenda Moore, PE, CPM -- NCDOT Roadway Design Unit (roadwaydesign@ncdot.gov)

Clark Morrison, PhD, PE -- NCDOT Pavement Management Unit (cmorrison@ncdot.gov)

Stuart Basham -- NCDOT Division 10 (slbasham@ncdot.gov)

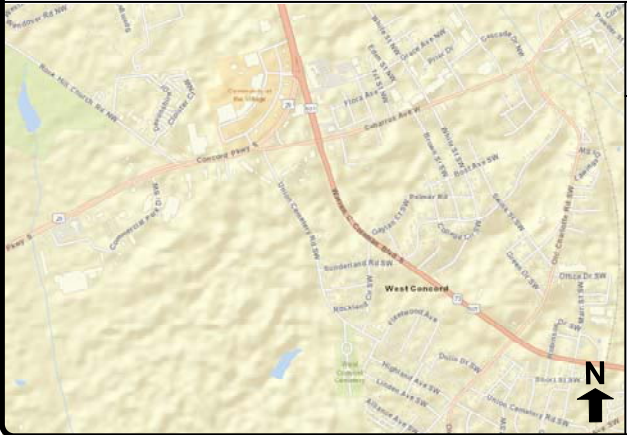
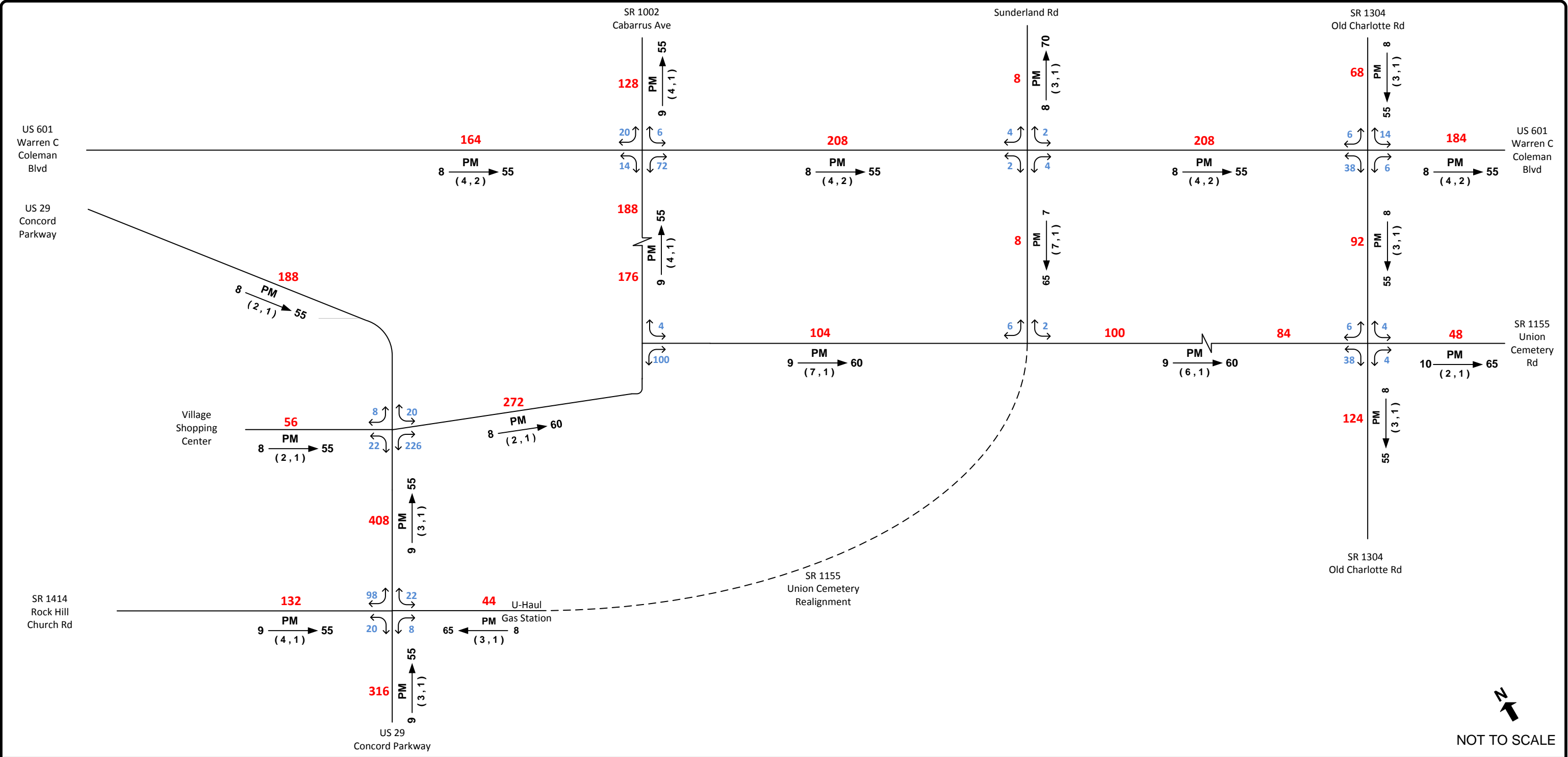
Brian Wert, PE -- NCDOT Transportation Planning Division (bmwert@ncdot.gov)

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Phil Conrad -- Cabarrus-Rowan MPO (pconrad@mblsolution.com)

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NCDOT Traffic Forecasting GIS Support (trafficforecastinggissupport@ncdot.gov)



2017

AVERAGE ANNUAL DAILY TRAFFIC

LEGEND

K

PM

(d, t)

D

(d,t)

###

Vehicles Per Day (VPD) in 100s

1-

Less than 50 VPD

X

Movement Prohibited

Roadway

●

Bulb-Out

K

Design Hour Factor

PM

PM Peak Hour

D

Peak Hour Directional Split

Indicates Direction of D

(d,t)

Duals, TT-STs (%)

TIP: U-5956

WBS: 46891.1.1

COUNTY: Cabarrus

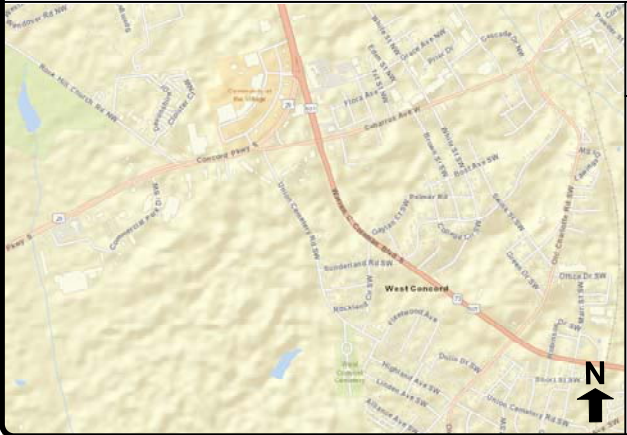
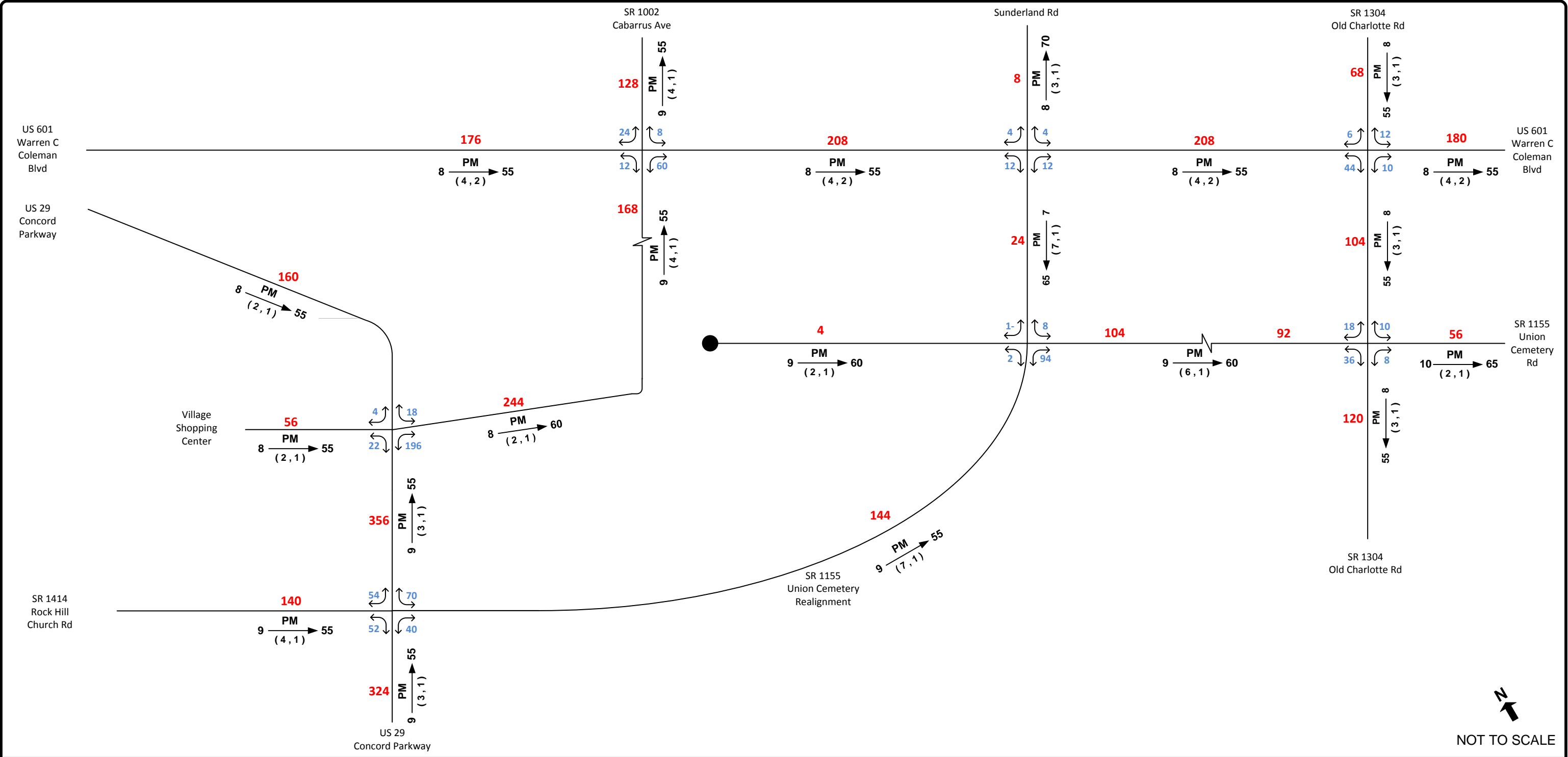
DIVISION: 10

DATE: January 2, 2018

PREPARED BY: WSP, USA

LOCATION: Union Cemetery Road from Sunderland Road to US 29 (Concord Parkway)

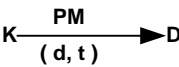
PROJECT: Relocate Union Cemetery Rd



2017 AVERAGE ANNUAL DAILY TRAFFIC

BUILD ALTERNATIVE

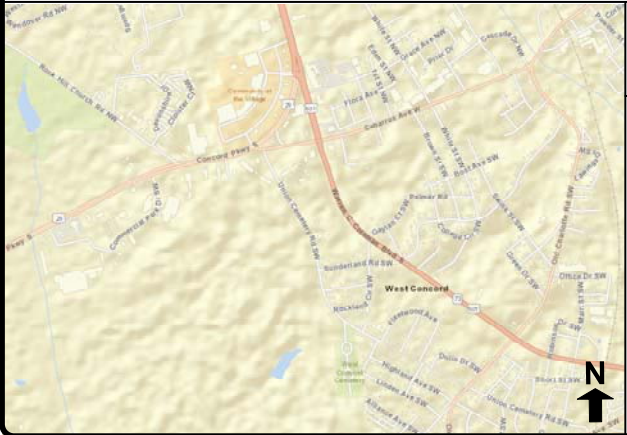
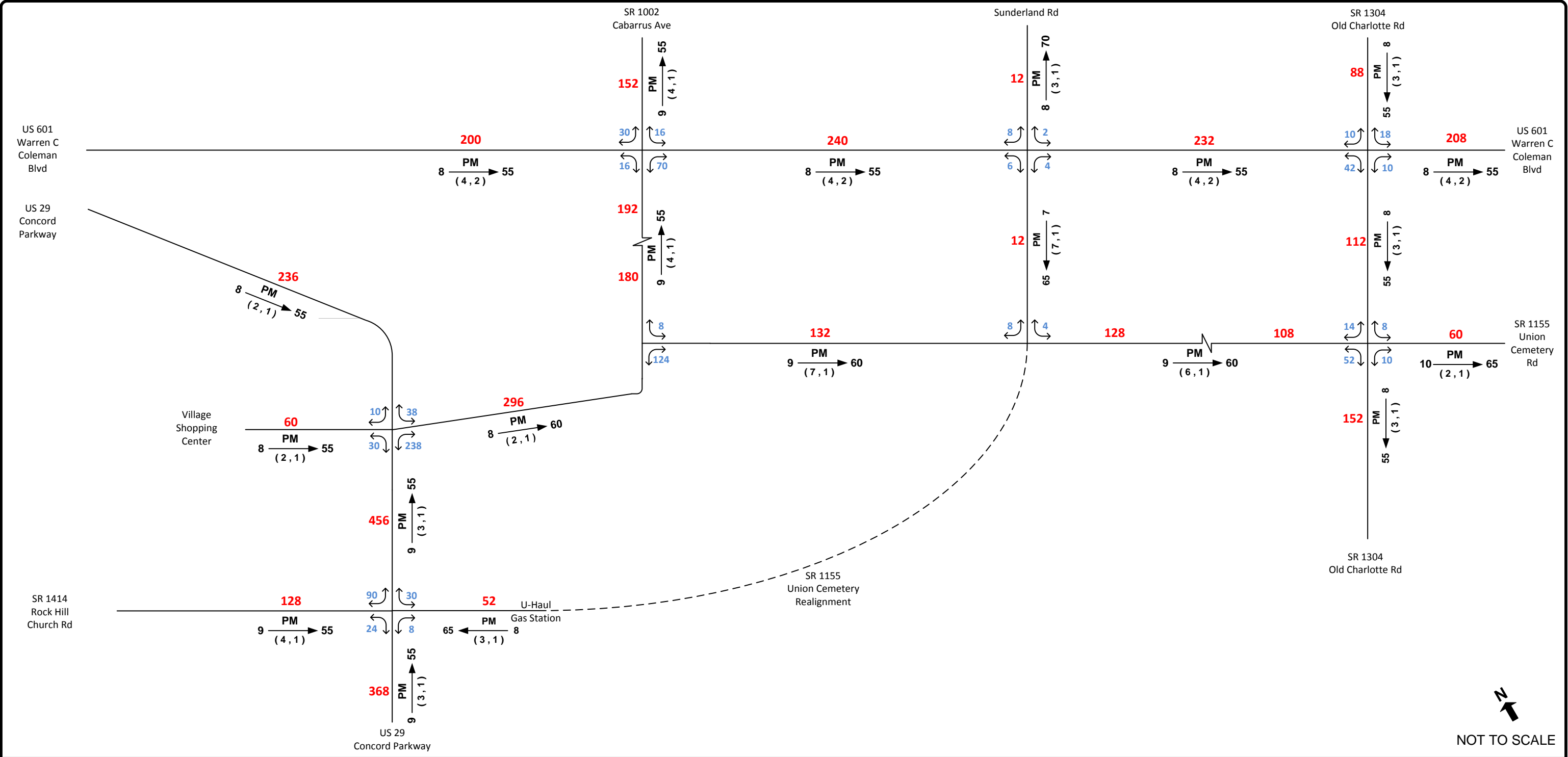
LEGEND



- ### Vehicles Per Day (VPD) in 100s
- 1- Less than 50 VPD
- X Movement Prohibited
- Roadway
- Bulb-Out

- K Design Hour Factor
- PM PM Peak Hour
- D Peak Hour Directional Split
- Indicates Direction of D
- (d,t) Duals, TT-STs (%)

TIP: U-5956	WBS: 46891.1.1
COUNTY: Cabarrus	DIVISION: 10
DATE: January 2, 2018	
PREPARED BY: WSP, USA	
LOCATION: Union Cemetery Road from Sunderland Road to US 29 (Concord Parkway)	
PROJECT: Relocate Union Cemetery Rd	



2040

AVERAGE ANNUAL DAILY TRAFFIC

LEGEND

K

PM

(d, t)

D

###

Vehicles Per Day (VPD) in 100s

1-

Less than 50 VPD

X

Movement Prohibited

—

Roadway

●

Bulb-Out

K

Design Hour Factor

PM

PM Peak Hour

D

Peak Hour Directional Split

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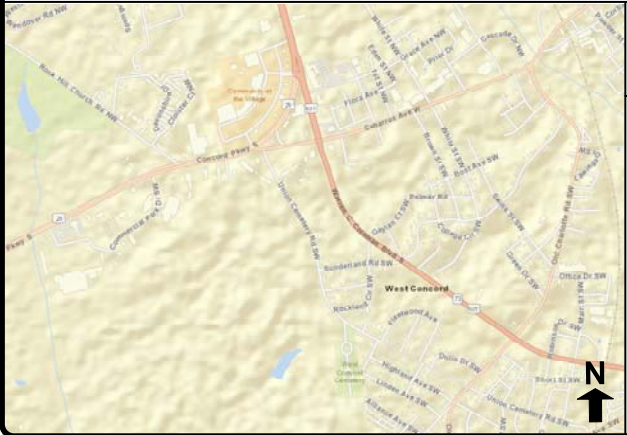
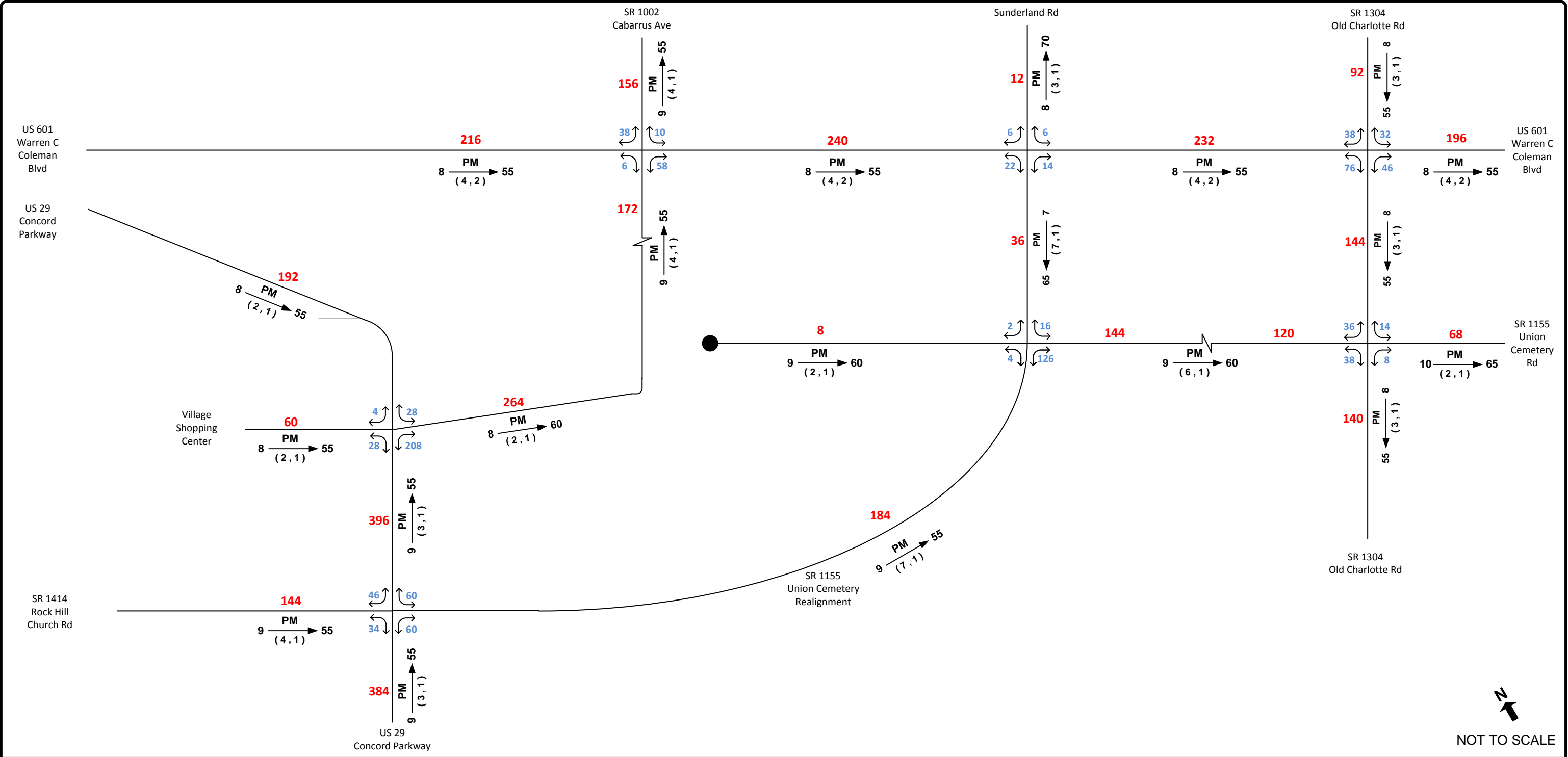
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2040 AVERAGE ANNUAL DAILY TRAFFIC			BUILD ALTERNATIVE	
<div>LEGEND</div> <div><div><div><div><div>K</div><div>PM</div><div>(d, t)</div></div><div>D</div></div><div><div><div>X</div><div></div><div>●</div></div><div><div>Vehicles Per Day (VPD) in 100s</div><div>Less than 50 VPD</div><div>Movement Prohibited</div><div>Roadway</div><div>Bulb-Out</div></div></div></div></div>	TIP: U-5956		WBS: 46891.1.1	
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— Roadway		→ Indicates Direction of D		
● Bulb-Out		(d,t) Duals, TT-STs (%)		